

REMARKS

I. Elections/Restrictions

The Examiner indicated that the application contains claims directed to the following patentably distinct species of the claimed invention: Species I (Figures 3-4, Claims 1-13) and Species II (Figure 2, claims 14-17).

The Examiner stated that the Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if not generic claim is finally held to be allowable. The Examiner indicated that currently, no claim is generic.

The Examiner advised the Applicant that reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including claims subsequently added. The Examiner indicated that an argument that a claim that is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

The Examiner further indicated that upon allowance of a generic claim, the Applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, Applicant must indicate which are readable upon the elected species.

During a telephone conversation with Attorney Kris Fredrick on 8/16/ 2004, a provisional election was made without traverse to prosecute the invention of Species I, claims 1-13. The Examiner indicated that affirmation of this election must be made by Applicant in replying to this Office Action. The Applicant therefore affirms this election by way of this reply/amendment, and the amendments indicated herein.

II. Drawings

The Examiner indicated that Figs. 1A-1B should be designated by a legend such as "Prior Art" because only that is old is illustrated. The Examiner further indicated that corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Therefore, Applicant is submitting revised Figs. 1A-1B with this reply/amendment. Applicant notes that the submitted replacement sheets for Figs. 1A-1B are labeled "Replacement Sheet" in the page header so as not to obstruct any portion of the drawings figures.

III. Claim Rejections Under 35 U.S.C. § 102

Prima Facie Anticipation

In order to successfully set forth a rejection to a claim under 35 U.S.C. § 102, a *prima facie* case of unpatentability must be established by the Examiner. A general definition of *prima facie* unpatentability is provided at 37 C.F.R. §1.56(b)(2)(ii):

A *prima facie* case of unpatentability is established when the information *compels a conclusion* that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability. (*emphasis added*)

"Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983) (citing *Soundscriber Corp. v. United States*, 360 F.2d 954, 960, 148 USPQ 298, 301 (Ct. Cl.), *adopted*, 149 USPQ 640 (Ct. Cl. 1966)), *cert. denied*, 469 U.S. 851 (1984). Thus, to anticipate Applicant's claims, the reference or references utilized as a basis for the rejection

under 35 U.S.C. § 102 must disclose each element recited therein. "There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed. Cir. 1991).

To overcome the anticipation rejection, the applicants need only demonstrate that not all elements of a *prima facie* case of anticipation have been met, *i. e.*, show that the reference or references cited by the Examiner fails to disclose every element in each of the applicants' claims. "If the examination at the initial state does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443, 1444 (Fed. Cir. 1992).

Reynolds, et al.

The Examiner rejected claims 1, 3, 6-7 under 35 U.S.C. § 102(b) as being anticipated by Reynolds, et al. (U.S. Patent No. 6,215,299). The Examiner argued that Reynolds et al. discloses the same invention as claimed: A magnetic linear displacement sensor comprising: a Hall element 20 having a sensor plate surface; and at least one magnet 22 having a lengthwise dimension along which the Hall element detects a magnetic field component orthogonal to the sensor plate surface during displacement sensing, the magnet comprising first and second pole faces (24, 36) disposed on opposite lengthwise sides thereof and having a polarization axis aligned orthogonally 46 with respect to the lengthwise dimension, the first pole face opposing the Hall element and having a non-planar surface contoured to generate a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing.

The Applicants respectfully disagree with this assessment. The Examiner argued that the reference numeral 20 of Reynolds et al is a Hall element having a

sensor plate surface. The Examiner has not indicated, however, which portion of Reynolds suggests or shows a sensor plate surface. Additionally, the Examiner argued that reference numeral 22 refers to "at least one magnet" having a lengthwise dimension along which the Hall element detects the magnetic field component orthogonal to the sensor plate during displacement sensing. Reynolds does not disclose or suggest displacement sensing, nor has the Examiner indicated which portion of the component associated with reference numeral 22 shows a lengthwise dimension. Additionally, the Examiner has not explained how either reference numeral 20 or 22 and/or any other component of Reynolds shows detection of the magnetic field component orthogonal to the sensor plate.

Reynolds does not show a magnetic field component orthogonal to a sensor plate. The Examiner argued that reference numeral 46 refers to "orthogonally". A review of Reynolds, however, indicates only that reference numeral 46 an axis or a midpoint (i.e., see col. 3, lines 38-41 of Reynolds).

The Examiner also argued that Reynolds shows or suggests a "first pole face opposing the Hall element and having a non-planar surface contoured to generate a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing". The Examiner has not, however, pointed out which components of Reynolds et al constitute a non-planar surface that is contoured. Also, the Examiner has not explained which portions of Reynolds et al shows the generation of a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing.

The Applicant asserts that the Examiner has instead taken the language of the Reynolds et al reference out of context, and in effect, produced the words of the claims (and sometimes, not even the words or concepts of the claims), without their meaning or context. The Applicant reminds the Examiner that in order to succeed in setting forth a rejection to a claim or group of claims under 35 U.S.C. § 102, the cited reference (in this case, Reynolds et al) must show every feature and

limitation of the rejected claim. If even one feature is lacking in the cited reference, the rejection must be withdrawn. In this case, the Examiner has not identified each and every feature and limitation of Applicant's claims 1, 3, 6 and 7. The Applicant therefore respectfully requests that the rejection to claims 1, 3, 6, 7 under 35 U.S.C. § 102(e) be withdrawn.

Gandel et al.

The Examiner also rejected claims 1-9 under 35 U.S.C. § 102(e) as being anticipated by Gandel et al. (U.S. Patent No. 6,593,734). The Examiner argued that Gandel et al discloses the same invention as claimed: A magnetic linear displacement sensor comprising: a Hall element 10 having a sensor plate surface; and at least one magnet 8 having a lengthwise dimension along which the Hall element detects a magnetic field component orthogonal to the sensor plate surface during displacement sensing, the magnet comprising first and second pole faces (S, N) disposed on opposite lengthwise sides thereof and having a polarization axis aligned orthogonally SN with respect to the lengthwise dimension, the first pole face opposing the Hall element and having a non-planar surface contoured to generate a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing (citing Figs 1-2, 11 and 13 of Gandel et al.).

The Applicant respectfully disagrees with this assessment. The Applicant asserts that the arguments presented above with respect to the rejection to claims 1, 3, 6-7 under 35 U.S.C. § 102(b) as being anticipated by Reynolds, et al apply equally to the rejection to claims 1-9 under 35 U.S.C. § 102(e) as being anticipated by Gandel et al. Applicant's claim 1 is generally directed toward a system that includes a Hall element having a sensor plate surface; and one or magnets having a lengthwise dimension along which the Hall element detects the magnetic field component orthogonal to the sensor plate surface during displacement sensing. The magnet(s) comprise first and second pole faces disposed on opposite lengthwise sides thereof and having a polarization axis aligned orthogonally with

respect to the lengthwise dimension, the first pole face opposing the Hall element and also have a non-planar surface contoured to generate a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing.

Applicant's note that the Examiner has not identified, which portion of Gandel et al constitutes a sensor plate surface of the Hall element. In particular, the Examiner has not explained how Gandel et al shows or anticipates that such a non-planar surface is contoured to generate a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing. Instead, the Examiner has merely cited Figs 1-2, 11 and 13 and referred to reference numeral 10 of Gandel et al, but has not explained how Gandel et al shows a sensor plate surface as taught by Applicant's invention. The Examiner has also not identified, which portions of Gandel et al detect a magnetic field component orthogonal to the sensor plate surface during displacement sensing. Figs 1-2, 11 and 13 of Gandel et al cited by the Examiner do not show such orthogonality. Gandel et al does not show a magnet comprising first and second pole faces (S, N) disposed on opposite lengthwise sides thereof and having a polarization axis aligned orthogonally SN with respect to the lengthwise dimension, which also includes a non-planar surface is contoured to generate a substantially linear orthogonal magnetic field component sensed by the Hall element during linear displacement sensing.

Claims 11-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by Gandel et al. (U.S. Patent No. 6,593,734). The Examiner argued that Gandel et al discloses the same invention as claimed: A magnetic linear displacement sensor comprising: a Hall element 10 having a sensor place surface; and first and second permanent magnets each having a first pole face disposed on a convex contoured lengthwise side and a second pole face disposed on an opposite lengthwise side thereof, and each having a polarization axis aligned orthogonally with respect to the lengthwise dimension, the first and second permanent magnets mutually disposed

such that the contoured first pole faces are aligned in mutual opposition to form a sensing corridor therebetween, the Hall element plate disposed within the sensing corridor substantially centered between the contoured first pole faces (citing Fig. 11 of Gandel et al).

The Applicants respectfully disagree with this assessment. Applicants note that Gandel does not teach, disclose or suggest wherein the surface contour of each of the first pole faces is bounded at the ends of the lengthwise dimension by lateral edges, and wherein the contour of the first pole face is characterized as generally sloping upward from each of the lateral edges and peaking at approximately the midpoint between the lateral edges. Such limitations are taught by Applicant's amended claim 11, but are not shown or anticipated by Gandel et al.

Therefore, because Gandel et al does not disclose or anticipate all of the limitations of Applicant's amended claim 11, Applicant submits that the aforementioned rejection to Applicant's claim 11 has been traversed and should be withdrawn. Regarding claim 12, Applicant notes that claims 12 has been cancelled by amendment. Thus, the Applicant submits that the Examiners argument with respect to claim 12 are rendered moot. Applicants therefore respectfully request withdrawal of the rejection to claims 11-12 under 35 U.S.C. § 102(e) as being anticipated by Gandel et al.

III. Allowable Subject Matter

The Examiner objected to claims 10 and 12 as being dependent upon a rejected base claim, but indicated that such claims would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Claim 10 has therefore been amended to incorporate all the feature of the base claim 1 and any intervening claims (i.e., there were no intervening claims

between claims 1 and 10, because claim 10 depends directly from claim 1). It is believed that claim 10 is now in condition for allowance.

Applicant has also cancelled 12 and the features and limitations of former claim 12 have been incorporated by amendment into claim 11 as indicated herein. Therefore, claim 12 has been rewritten in independent form as claim 11 via the amendments indicated herein, thereby including all of the limitations of the base claim and any intervening claims (note that there were no intervening claims between claims 11 and claim 12). It is believed that claim 11 is now in condition for allowance and than any dependent claims thereof should also be allowed.

IV. Conclusion

The Applicants have amended the claims to more particularly disclose the invention claimed thereof. It is believed that such amendments do not constitute new matter, but are rather clarifying in nature. Additionally, it is believed that support for such amendments is provided within the specification, including the drawings and claims, and that the specification adequately enables such amendments.

In view of the foregoing discussion, the Applicants have responded to each and every rejection of the Official Action, and respectfully request that a timely Notice of Allowance be issued. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call the Applicants' attorney at the below-indicated telephone number.

Respectfully submitted,



Dated: November 16, 2004

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